

ABSTRACT

The invention includes catalysts for copolymerization of olefins and styrenes, comprising (A) a transition metal compound, (B) an oxygen-containing compound and/or a compound capable of reacting with a transition metal compound to form an ionic complex, (C) a specific compound such as a reaction product of triphenylmethyl alcohol and triisobutylaluminium, and optionally (D) an alkylating agent, and methods for producing olefin-styrene copolymers in the presence of such catalysts. The catalysts have the advantages of enhancing the copolymerization activity and reducing the amount of the promoter such as oxygen-containing compounds, etc. Using them, olefin-styrene copolymers can be produced efficiently and inexpensively.

Declaration, Power Of Attorney and Petition

Page 1 of 3

WE (I) the undersigned inventor(s), hereby declare(s) that:

My residence, post office address and citizenship are as stated below next to my name,

We (I) believe that we are (I am) the original, first, and joint (sole) inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled

CATALYST FOR OLEFIN/STYRENE COPOLYMERIZATION, AND PROCESS FOR
PRODUCING OLEFIN/STYRENE COPOLYMER

the specification of which

☐ is attached hereto.

☐ was filed on _____ as

Application Serial No. _____

and amended on _____

☒ was filed as PCT international application

Number PCT/JP00/01101

on February 25, 2000,

and was amended under PCT Article 19

on _____ (if applicable).

We (I) hereby state that we (I) have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We (I) acknowledge the duty to disclose information known to be material to the patentability of this application as defined in Section 1.56 of Title 37 Code of Federal Regulations.

We (I) hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed. Prior Foreign Application(s)

Application No	Country	Day/Month/Year	Priority Claimed
<u>11-050668</u>	<u>Japan</u>	<u>26/ 2/1999</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No

We (I) hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

(Application Number)

(Filing Date)

We (I) hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365 (c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

Application Serial No.	Filing Date	Status (pending, patented, abandoned)

31 And we (I) hereby appoint: Norman F. Oblon, Reg.No.24,618; Marvin J. Spivak, Reg.No.24,913; C. Irvin McClelland, Reg.No.21,124; Gregory J. Maier, Reg.No.25,599; Arthur I. Neustadt, Reg.No.24,854; Richiard D. Kelly, Reg.No.27,757; James D. Hamilton, Reg.No.28,421; Eckhard H. Kuesters, Reg.No.28,870; Robert T. Pous, Reg.No.29,099; Chiarles L. Gholz, Reg.No.26,395; Vincent J. Sunderdick, Reg.No.29,004; William E. Beaumont, Reg.No.30,996; Robert F. Gnuse, Reg.No.27,295; Jean-Paul Lavalleye, Reg.No.31,451; Stephen G. Baxter, Reg.No.32,884; Robert W. Hahl, Reg.No.33,893; Richiard L. Chinn, Reg.No.36,379; Steven P. Weihrouch, Reg.No.32,829; John T. Goolkasian, Reg.No.26,142; Richiard L. Chinn, Reg.No.34,305; Steven E. Lipman, Reg.No.30,001; Carl E. Schlier, Reg.No.34,426; James J. Kulbaski, Reg.No.34,648; Richiard A. Neifeld, Reg.No.35,299; J.Derek Mason, Reg. No.35,270; Surinder Sachar, Reg. No.34,423; Christina M. Gadiano, Reg. No.37,628; Jeffrey B. McIntyre, Reg.No.36,867; Paul E. Rauch, Reg.No.38,591; William T. Enos, Reg.No.33,128; and Micheal E. McCabe, Jr., Reg.No.37,182; our(my) attorneys, with full powers of substitution and revocation, to prosecute this application and to transact all business in the Patent Office connected therewith; and we(I) hereby request that all correspondence regarding this application be sent to the firm of OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C., whose Post Office Address is: Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202.

We (I) declare that all statements made herein of our (my) own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or important, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Nobuhiro Yabunouchi
NAME OF FIRST SOLE INVENTOR

Nobuhiro Yabunouchi
Signature of Inventor

June 14, 2001
Date

Residence: 1-1, Anesakikaigan,
Ichihara-shi, Chiba 299-0107 Japan

JPX
Citizen of: Japan

Post Office Address: same as above